

I. Formal Matters and Objections

The Examiner has objected to the drawings as failing to comply with 37 CFR 1.84(p)(5) for including the reference numeral "205" not referenced in the specification. Accordingly, included herewith is a red-line correction of FIGURES 2-6 correcting this inadvertent error. The Applicant appreciates the Examiner's diligence in finding and bringing these errors to his attention.

II. Rejection of Claims 6-7 and 16-17 under 35 U.S.C. §112

The Examiner has rejected Claims 6-7 and 16-17 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as his invention. Namely, the Examiner has rejected Claims 6-7 and 16-17 as having antecedent basis problems. Accordingly, the Applicant has amended those claims to correct this inadvertent error. Therefore, the Applicant requests that the Examiner remove this §112 rejection.

III. Rejection of Claims 1-3, 5, 6, 8, 10, 11-13, 15, 16, 18, and 20 under 35 U.S.C. §102

The Examiner has rejected Claims 1-3, 5, 6, 8, 10, 11-13, 15, 16, 18, and 20 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,255,154 B1 to Akaishi, *et al.* (Akaishi). Presently, independent Claims 1 and 11 include the element of creating a gate over a lightly-doped source/drain region. In contrast to the Examiner's beliefs, Akaishi fails to teach such an element.

Akaishi is directed to method of manufacturing a semiconductor device which can satisfy the requirements of reduced "on" resistance. Initially, it should be noted that what the Examiner believes is an LDD region is actually a drift region 22. As discussed at column 4, lines 15-18, "the

N-type impurities serve to form an N layer 22 constituting a drift region in later steps." Therefore, layer 22 does not constitute a lightly doped source/drain region but a drift region.

In actuality, Akaishi specifically teaches that its LDD structures are formed after formation of the gate 7A, however, prior to forming the side wall spacers 36. (See, FIGURES 6-8 and associated description at column 6, lines 13-50). This step is in direct contrast to what is presently claimed in independent Claims 1 and 11. As recited above, independent Claims 1 and 11 require that the gate be created over the lightly-doped source/drain regions. By nature, this requires that the lightly-doped source/drain regions be formed prior to formation of the gate. Such is clearly not the case in the Akaishi reference.

Therefore, Akaishi does not disclose each and every element of the claimed invention and as such, is not an anticipating reference. Because Claims 2-3, 5, 6, 8, 10, 12-13, 15, 16, 18, and 20 are dependent upon Claims 1 and 11, Akaishi also cannot be an anticipating reference for Claims 2-3, 5, 6, 8, 10, 12-13, 15, 16, 18, and 20. Accordingly, the Applicant respectfully requests the Examiner to withdraw the §102 rejection with respect to these Claims.

IV. Rejection of Claims 4, 7, 9, 14, 17, and 19 under 35 U.S.C. §103

The Examiner has rejected Claims 4, 7, 9, 14, 17, and 19 under 35 U.S.C. §103(a) as being unpatentable over Akaishi. As established above, Akaishi fails to teach each and every element of independent Claims 1 and 11. Similarly, Akaishi fails to suggest each and every element of independent Claims 1 and 11. As Akaishi specifically teaches that its LDD structure is formed after formation of its gate 7A, similar to the prior art referenced in the Applicant's background section of

its application, Akaishi fails to suggest that its gate is formed over its lightly-doped source/drain region, as required by independent Claims 1 and 11.

Thus, Akaishi fails to teach or suggest the invention recited in independent Claims 1 and 11 and their dependent claims, when considered as a whole. Accordingly, it fails to establish a prima facie case of obviousness with respect to Claims 4, 7, 9, 14, 17, and 19. Claims 4, 7, 9, 14, 17, and 19 are therefore not obvious in view of Akaishi.

In view of the foregoing remarks, the cited reference does not support the Examiner's rejection of Claims 4, 7, 9, 14, 17, and 19 under 35 U.S.C. §103(a). The Applicant therefore respectfully requests the Examiner withdraw the rejection.

V. Conclusion

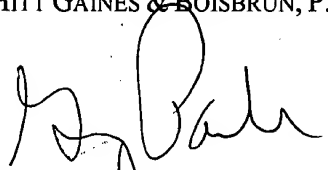
In view of the foregoing amendment and remarks, the Applicant now sees all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicits a Notice of Allowance for Claims 1-20.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

The Applicant requests the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

(1) Kindly rewrite Claim 6 as follows:

6. (Amended) The method as recited in Claim 5 wherein diffusing the second dopant includes diffusing a [second] P-type dopant having an implant dose ranging from about $1\text{E}13$ atoms/cm² to about $1\text{E}14$ atoms/cm².

(2) Kindly rewrite Claim 7 as follows:

7. (Amended) The method as recited in Claim 5 wherein diffusing the second dopant includes diffusing a [second] P-type dopant having an implant dose about 100 times higher than an implant dose of the first dopant.

(3) Kindly rewrite Claim 16 as follows:

16. (Amended) The method as recited in Claim 15 wherein diffusing the second dopant includes diffusing a [second] P-type dopant having an implant dose ranging from about $1\text{E}13$ atoms/cm² to about $1\text{E}14$ atoms/cm².

(4) Kindly rewrite Claim 17 as follows:

17. (Amended) The method as recited in Claim 15 wherein diffusing the second dopant includes diffusing a [second] P-type dopant having an implant dose about 100 times higher than an implant dose of the first dopant.